



09/20/2023

2023.09.20 Project Skunkworks: T7, Taq, Tth, and ScriptII Polymerase Suite

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[T7 Plus™ - A T7 RNA polymerase reagent](#)[Taq+Start™ - A hot-start platinum upgrade to Taq with 2x better fidelity \(1 error every 10,000kbp\)](#)[Taq Scribe RT qPCR - A one step RT qPCR hot start reagent](#)[Tth+Start™ - A hot-start platinum equivalent to Taq with 2x better fidelity and RT function](#)[II Scribe RT™ - Script II reverse transcriptase 2x reagent](#)[Plus Start™ - A qPCR system title that includes the above enzymes and a T7 RNA polymerase reagent.](#)

>S-Taq+Theta43

MHHHHHSSGLVPRGSGMKETAAGFERQHMDSPDLGTDGDDKMATVKFKYKGEKEVDISKIKKVMRVGKMISFTYDEGGGKTGRGAVSEKDAPKELLQMLEKQKKMRGMLPLFEPKGRVLLVDGHHLAYRTFFALKGLTTSRGPEVQAVYGFAG
 SLLKALKEDGAVIVVDAKAPSRHEAYGGYKAGRAPTPEDFPRQLALIKELVDLLGLARLEVPGEADDVLATLAKKAEKEGYEVRIITADRDLYQLVSDRVAVLHPEGHILITPEWLWEKYGLRPEQWVDFRALVGDPSNLPVKGIGEKTA
 KLEEWGSLAALLKNDRLKPAIRKILAHMDLKLWDLAKVRTDLPLEVDFAKRRPDRERLRAFLERLEFGSLHEFGLLLESPKALEEAPWPPPEGAFFVGLSRKEPMMADLALAAARGGRVHRAPEYKALRDLKEAGLLAKDLSVLAL
 REGGLPGGDDPMLLAYLLDPSNTTPEGVARRYGGWTEEAGERAALSERLFANLWGRLEGEERLLWLYEVERPLSAVLAMHEATGVRLDVAYLRALSLEVAEEIARLEAEVFRLAGHPFNLNSRDLERVLFDLGLPAIGKTEKTGKRSTSAA
 VLEALREAHPIVEKILQYRELTKLSTYIDPLDIHPRTGRLHTRFNQTATATGRLSSSDPNLQNIPIVTRPLGQIRRAFIAEEMGLVALDYSQIELRVLAHLSGDNELIRVFQEGRDIHTETASMMFGVPREAVDPLMRAAKTINFGVLYGM
 SAHRLSQELAIPYEEAQAIFERYFQSPFKVRAMIEKLEEGRRRGYVETLFGRRRYVPDLNARVKSREAAERMAFNMPVQGTAAADLMKAMVCLFPRLEEMGARMLLQVHDELVEAPKERAEEAVARLAKEVMGVYLAFLVEVGGEDWLS
 AKE*

>S-Tth+Theta43

MHHHHHSSGLVPRGSGMKETAAGFERQHMDSPDLGTDGDDKMATVKFKYKGEKEVDISKIKKVMRVGKMISFTYDEGGGKTGRGAVSEKDAPKELLQMLEKQKKMEAMLPFEPKGRVLLVDGHHLAYRTFFALKGLTTSRGPEVQAVYGFAG
 SLLKALKEDGKAVFVDAKAPSRHEAYEAYKAGRAPTPEDFPRQLALIKELVDLLGFTLRLEVPGEADDVLATLAKKAEKEGYEVRIITADRDLYQLVSDRVAVLHPEGHILITPEWLWEKYGLRPEQWVDFRALVGDPSNLPVKGIGEKTA
 LKLLKEWGSLENLLKNDRVKPENVREKIAHLEDLRLSLESRVRTDLPLEVDLAQGREPDREGLRAFLERLEFGSLHEFGLLLEAPALEEAPWPPPEGAFFVGLSRPEPMAELKALACRDRGVHRAADPLAGLKDLKEVRGLLAKDLAVL
 ASREGLDLPVGGDDPMLLAYLLDPSNTTPEGVARRYGGWTEEAGERAALSERLHRLNLLKRLGEKEKLLWLYEVEKPLSRVLAHMEATGVRRDVAYLQALSLEAEIIRLLEEVFRLAGHPFNLNSRDLERVLFDLRLPALGKTQKTGKRSTS
 AAVLEALREAHPIVEKILQHRELTKLNTYVDPLSLVHPRTGRLHTRFNQTATATGRLSSSDPNLQNIPIVTRPLGQIRRAFIAEEMGLVALDYSQIELRVLAHLSGDNELIRVFQEGKDIHTQASMMFGVPREAVDPLMRAAKTINFGVLY
 GMSAHLRLSQELAIPYEEAQAIFERYFQSPFKVRAMIEKLEEGRRRGYVETLFGRRRYVPDLNARVKSREAAERMAFNMPVQGTAAADLMKAMVCLFPRLEEMGARMLLQVHDELLEAPQARAEVAALAKEAMEKAYLAFLVEVGGEDW
 LSAKG*

>ScriptII+Theta43

MHHHHHSSGLVPRGSGMKETAAGFERQHMDSPDLGTDGDDKMTLNIEDEHRLHETSKEPDVSLGSTWLSDFPQAWAETGGMLAVRQAPLIPLKATSTPVSIKQYPMSEARLGIKPHIQRLLDQGLVPCQSPWNTPLLPVKKPGTNDYRPV
 QDLREVNKRVEDIHPTVPNPNLLSGLPSSHQWYTVLDLDAFFCLRLHPTSQPLFAFEWRDPEMISGQLTWTRLPQGFKNSTPLFDEALHRDLADFIQHDPDILLQYVDDLLAATSELDCCQGTALLQTLGNLGYRASAKKAQICQKQVQVY
 LGYLLKEGQRMLEARKETVMGQPTKTRQLREFLGTAGFCRLWIPGAEMAAPLYPLTKTGTFLNMGDQKQYQEIQALLTAPALGLPDLTKPFELFVDEKQYAGKGLTQKLGWRRPVAYLSKKLDPAAGWPPCLRMVAIAVLTKDAG
 KLTMGQPLVILAPHAEALVKQPPDRWLSNARMTHYQALLDTRVQFGPVVALNPATLLPLEEGLQHNCNLSRLI*

> T7RNAPOL+Theta43

MHHHHHSSGLVPRGSGMKETAAGFERQHMDSPDLGTDGDDKMTNINAKNDFSDIEAIAFPNTLADHYGERLAREQLAHEHSEYEMGEARFKMFERQLKAGEVADNAAKPLITLLPKMIARINDWFEVVKAKGRKPTAFQGLQEIKEPA
 VAYITIKTTLACLTSADNTTVQAVASAGRAIEDARFGRIRDLEAKHFKKNVEEQLNKRGVHGVYKAFMVQVEADMLSKGLGGEAWSSHHKEDSIHVGVRCIEMIESTGMVSLHRQAGVGVQDSSETIAPAEYAEAIATRAGALAGISPMFQ
 PCVVPPKMTGITGGGYMANGRRPLALVRTHSKKALMRYEDVMPYVYKAINIAQNTAMKINKKVLAVANITKMKHCPVEDIPAIEEREELPMKPEDIDMNPALTAWKRAAAAVYRKDKARKSRRISLEFMLEQANKFANHKAIFPNMMDWRGR
 VYAVSMFNQGNMTKGLTLAKGKPIGKEGYWLIKIGANCAGVDKVPFPERIKFIENHENIMACASPLENTWMAEQDSPFCFLAFCEYAGVQHHLGSLYNCSLPLAFDGGSCSGIQHFSAMLDRDEVGGRVAVNLPSSETVQDIYGIIVAKKWEI
 LQADAINGTDENVTVTDENTGEISEKVKLGTAKLAGQMLAYGVTRSVTKRSVMTLAYGSKFEGFRQQVLEDITQPAIDSGKGLMFTQPNQAAGYMAKLIMESVSVTVVAEAMNMLKSAKLLAAEVKDKKTGEILRKRCVAVHMTPDGFPVWQ
 EYKPKIQTRLNMLFGQFRLQPTINTNKDSEIDAHKQESGIAPNFVHSDGSHLRKTVVMAHEKYGIESFALIHDSFGTIPADAANLFKAVRETMVDTYESCDVLADFYDQFADQLHESQDKMPALPAKGNLNLRIEESDFAF*

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